

## Interplanetary Network Directorate (IND) Deep Space Mission Systems (DSMS) Resource Allocation Planning & Scheduling Office (RAPSO)



# Four Antennas Down at the Same Time DSS-15 Downtime Proposal What is the Excess Capacity in Network?

Proposed Period:

March 10 – April 6 (Weeks 11-14)

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## **DSN** and User Major Events

- Post-launch support for two missions is ongoing during the weeks studied.
  - The SIRTF launch is planned for January 9, 2003 and continuous support on DSN resources is requested through April 9<sup>th</sup>.
  - The Rosetta launch is planned for January 13<sup>th</sup> and ICO support is planned through Week 14 where 8 hours are requested at DSS-54 daily. Rosetta also plans a navigation campaign in Weeks 15 and 16.
- Mars Odyssey mapping and Mars Global Surveyor mapping beta supplement is ongoing through the study period.
- On April 2<sup>nd</sup> the DSN plans to bring a new antenna, DSS-26, on line.





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## **DSN Supportability and Capacity**

#### Four Antenna Simultaneous Downtime:

- DSS-15 Proposed Downtime (NSP)
- Three Scheduled Antennas Down:
  - DSS-25
    - 20 kW X-band Transmitter
    - NSP
  - DSS-34
    - 20 kW X-band Transmitter
    - Ka-band Encoder
    - Azimuth Axle Repair
    - NSP
  - DSS-63
    - Servo
    - Ball Joint
    - NSP

Forecasted Project Supportability							
	11	12	13	14	<b>AVERAGE</b>		
70M	91%	90%	94%	93%	92%		
34H	97%	97%	98%	97%	97%		
34B1	94%	94%	94%	93%	94%		
Utilization by Subnet (Wall Clock)							
	11	12	13	14	<b>AVERAGE</b>		
70M	86%	85%	82%	85%	84%		
34H	73%	67%	66%	70%	69%		
34B1	75%	72%	71%	72%	73%		
Utilization by Complex (Wall Clock)							
	11	12	13	14	<b>AVERAGE</b>		
G	81%	79%	76%	79%	79%		
С	79%	76%	74%	77%	77%		
М	74%	69%	69%	71%	71%		

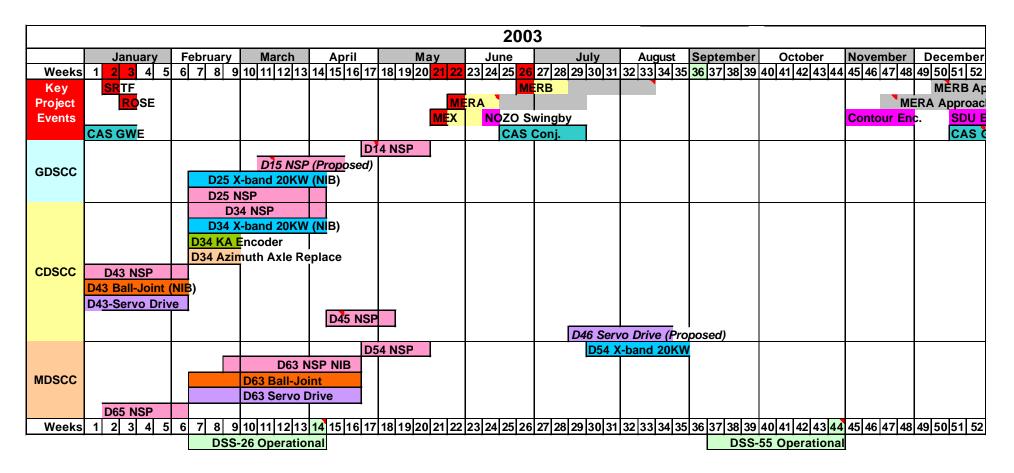
Availa	DSS			
70M	G	С		14, 43
34H		C	M	45, 65
34B1	G		M	24, 54





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## **DSN Downtime 2003**

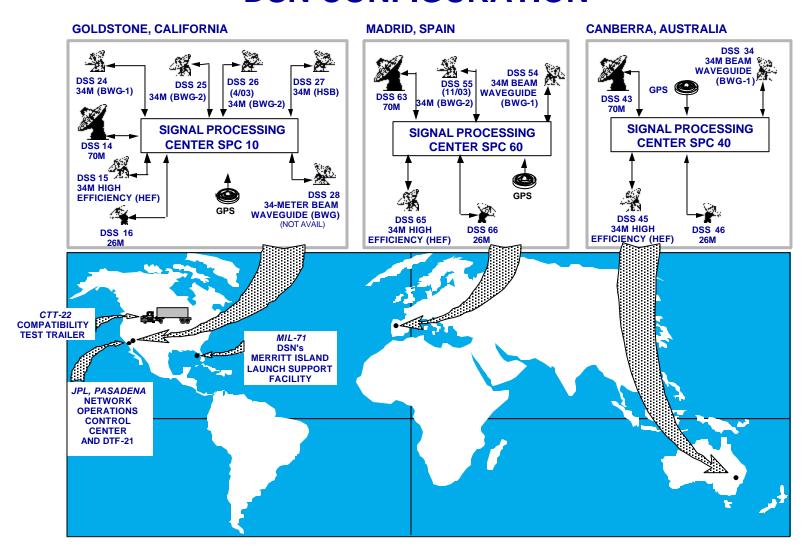






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## **DSN CONFIGURATION**







## **Resource Allocation Planning & Scheduling Office (RAPSO)**

## **Major DSN Downtimes by Site by Year**

Go to this web page to view the items listed above:

http://rapweb.jpl.nasa.gov/planning.htm